Fact or Legend? Applying Occam's Razor to the Sasquatch

Samantha LaFontaine
Massachusetts Academy of Math and Science

The principle known as Occam's razor states "Entities should not be multiplied beyond necessity," meaning that the simplest explanation is often the most likely. A monk and logician, William of Ockham, first stated this scientific axiom, which is also known as the Law of Parsimony. According to the law, when explaining observations of phenomena, it is most logical to make as few assumptions as possible. Thus, one can arrive at the most probable conclusion. The simplest conclusion may not always be correct, although it is more likely than theories that rely heavily on unnecessary assumptions.

Throughout North American history, people have claimed that an elusive ape-like creature known interchangeably as a bigfoot or sasquatch roams the woods. Much of the history of the creature remains shrouded in legend, tracing back to various Native American myths. In fact, some stories even contend that the infamous Daniel Boone shot and killed a bigfoot, which may have also inspired other American bigfoot stories. In the 1920s, J. W. Burns compiled many of these local tales in a series of newspaper articles which popularized the name and legend of the sasquatch, particularly in the United States and Canada. Gradually, more reports were made of bigfoot sightings and supposed evidence. One of the most influential pieces of evidence among bigfoot believers is the so-called Patterson-Gimlin film from 1967, which purportedly shows a bigfoot walking through the forest ("Bigfoot", n.d.). In 1995, Matt Moneymaker spearheaded the recent bigfoot movement with the founding of the Bigfoot Field Researchers Organization (BFRO). Moneymaker claims to have seen the creatures himself on more than one occasion ("Matt Moneymaker", n.d.). He and many other bigfoot researchers fall into the category of pseudoscientists, as defined by Martin Gardner. These scientists, also known as hermit scientists, display several distinct traits. Pseudoscientists often consider themselves to be enlightened and all others to be ignorant, believing that their work is not accepted by others due to unfair discrimination rather than some fault in their ideas (Shermer, 2010). Although bigfoot researchers may consult one another, they do not often have their work reviewed by mainstream scientists. One researcher, John Bindernagel, states that he believes it is the scientific community that is at fault, for they exhibit a bias against any purported evidence of the existence of sasquatches (Hume, 2011). This clearly fits the mindset of a pseudoscientist. However, not all those who prescribe to the existence of bigfoot fit this definition, and many actively participate in the scientific process.

In defiance of Occam's razor, the purported existence of sasquatches is based upon many ungrounded assumptions which could be replaced with simpler explanations. One of the greatest assumptions made by bigfoot researchers is that a large bipedal mammalian species exists in North America which is so elusive that it has evaded recognition by the majority. Bigfoot proponents also assume that remains have never been found because people are not actively looking for them ("Frequently Asked Questions", 2012). However, in keeping with the law of parsimony, it is much more likely that a body has not been found simply because the species does not exist. Various competing theories about the identity of sasquatches also rely on a great deal of assumptions. Some believe that the sasquatch is a relict population of *Gigantopithecus*,

while many maintain that it is an entirely unknown ape species. There is even a fringe theory that bigfoots are interdimensional beings, although there are few supporters of this ludicrous idea ("Bigfoot", n.d.). Occam's razor diminishes the credibility of such outlandish theories.

Several more parsimonious explanations exist for the alleged sightings of bigfoot. Most reports of sasquatch sightings are circumstantial and poorly documented and descriptions of the beast vary broadly and are often contradictory in nature ("Sasquatch", 2012). Thus for the existence of bigfoot to be factual, the physical characteristics of the species would have to be extremely variable. There are many more simple explanations for these supposed sightings. It is more likely that reported encounters are simply cases of mistaken identity in which people see a known animal such as a bear or another person and hasten to the conclusion that what they have seen must be a bigfoot. There is also the possible explanation that sightings and purported evidence could be the result of hoaxes. Many footprints and photographs of bigfoot are clearly hoaxes, and it is entirely plausible that others are as well. These theories do not rely on the unsubstantiated claims that are made by bigfoot proponents and are thus more congruent with Occam's razor.

When viewed through the lens of Occam's razor, it is evident that the study of the sasquatch falls into the category of a pseudoscience. Despite copious amounts of alleged evidence, the existence of such a species is not accepted by the scientific community, due to the great deal of unnecessary premises that are made by its advocates. The believers are quick to leap to conclusions and make uncorroborated claims when much simpler and more likely explanations exist for the so-called evidence and sightings of bigfoot. The community of bigfoot researchers, secluded from mainstream science, have ignored Occam's razor in their explanations and thereby reduced the validity of their claims.

Literature Cited

Bigfoot. (n.d.). Retrieved December 9, 2012, from http://en.wikipedia.org

Frequently Asked Questions. (2012). Retrieved December 8, 2012, from www.bfro.net

Hume, M. (2011, August 23) Biologist wants to move Sasquatch from the tabloids to the science journals. *Globe & mail*. Retrieved December 8, 2012, from ic.galegroup.com.

Moneymaker. (n.d.) Retrieved December 8, 2012, from http://animal.discovery.com

Sasquatch. (2012). In *Encyclopædia Britannica*. Retrieved December 9, 2012, from www.britannica.com

Shermer, M. (2010, May 23). Hermits and cranks: Lessons from Martin Gardner on recognizing pseudoscientists. *Scientific American,* Retrieved December 8, 2012, from www.scientificamerican.com